AMENDMENTS TO THE CLAIMS

Please amend the present application as follows:

Claims

1-31. (Canceled)

32. (Withdrawn) A method for supporting a plurality of operating modes in a peripheral device, the method comprising:

    reading a first flag stored in a volatile memory of the peripheral device;

    upon detecting a set condition of the first flag, retrieving from the volatile memory a first firmware code segment corresponding to a first operating mode in the plurality of operating modes;

    executing the firmware code segment; and

    else upon detecting a reset condition of the first flag, wherein the reset condition is indicative of an absence of the first firmware code segment in the volatile memory, loading the first firmware code segment into the volatile memory.

33. (Withdrawn) The method of claim 32, further comprising:

    providing a host computer; and

    loading a plurality of firmware code segments into a memory of the host computer, wherein each of the plurality of firmware code segments is executable to implement a corresponding operating mode in the plurality of operating modes of the peripheral device.

34. (Withdrawn) The method of claim 33, wherein loading the first firmware code segment into the volatile memory of the peripheral device comprises transferring the first firmware code segment from the memory of the host computer to the volatile memory of the peripheral device.

35. (Withdrawn) The method of claim 34, wherein loading the first firmware code segment into the volatile memory of the peripheral device further comprises deleting a second firmware code segment that had been previously loaded into the volatile memory of peripheral device, the second firmware code segment corresponding to a second operating mode in the plurality of operating modes.

36. (Withdrawn) The method of claim 34, further comprising:

transferring data of an application program from the host processor to the peripheral device prior to reading the first flag stored in the volatile memory of the peripheral device.

37. (Withdrawn) The method of claim 33, wherein loading the plurality of firmware code segments into the memory of the host computer comprises accessing a server.

38. (Withdrawn) The method of claim 37, wherein the server is a web server and the host computer is communicatively coupled to the web server through the Internet.

39. (Withdrawn) The method of claim 32, further comprising:

reading a version indicator stored in the volatile memory of the peripheral device, for determining a version of the first firmware code segment stored in the volatile memory of the peripheral device.

40. (Withdrawn) The method of claim 39, further comprising:

executing an integrity check program for verifying integrity of the first firmware code segment stored in the volatile memory of the peripheral device.

41. (Currently amended) A computer network, comprising:

a multifunctional peripheral device containing a volatile memory having a limited memory capacity selected to store that is limited to storing a subset of a plurality first portion of firmware code segments corresponding to a first functional mode amongst, wherein each of the plurality of firmware code segments is executable to implement a corresponding function in a plurality of functions of functional modes that are executable on the multifunctional peripheral device; and

a host processor computer comprising a memory in which is stored each of the plurality of firmware code segments corresponding to each of the plurality of functional modes that are executable on the multifunctional peripheral device, the host processor computer communicatively coupled to the multifunctional peripheral device for transferring the subset of firmware code segments first portion of firmware code to the peripheral device on an as-needed basis, thereby enabling the first functional mode while eliminating storage in the peripheral device, of firmware code portions that are not used when the first functional mode is selected.

42-44. (Canceled)

45. (Currently amended) The computer network of claim [[44]] 41, further comprising a server coupled to the host ~~processor~~ computer through a communications network.

46. (Canceled)

47. (New) A peripheral device for implementing a plurality of functional modes, the peripheral device comprising:

a user interface comprising a user-operable selector configured for:

a) selecting at a first instant in time, a first functional mode amongst the plurality of functional modes, the selection being carried out in order to load into the peripheral device from a host computer, a first firmware portion corresponding to the first functional mode, whilst excluding storage in the peripheral device of other firmware portions corresponding to functional modes other than the first functional mode, and

b) selecting at a second instant in time, a second functional mode that is different than the first functional mode, the selection being carried out in order to load into the peripheral device from the host computer, a second firmware portion corresponding to the second functional mode, whilst excluding storage in the peripheral device of other firmware portions corresponding to functional modes other than the second functional mode; and

a programmable controller coupled to the user interface, the programmable controller comprising:

a volatile memory device having a memory capacity selected to store either the first firmware portion or the second firmware portion, and exclude simultaneous storage of both the first and the second firmware portions;

a non-volatile memory device containing a download program that is executable for downloading into the peripheral device from the host computer, one of the first or the second firmware portions; and

a control circuit configured for storing in the volatile memory device, the downloaded one of the first or the second firmware portions.

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48. (New) The peripheral device of claim 47, wherein the plurality of functional modes consists of: i) a copy mode, ii) a scan mode, iii) a print mode, and iv) a facsimile mode.

49. (New) The peripheral device of claim 47, wherein the plurality of functional modes comprises: i) a copy mode, ii) a scan mode, iii) a print mode, and iv) a facsimile mode.

50. (New) The peripheral device of claim 49, wherein the first functional mode is the copy mode, and wherein upon selection of the copy mode, the first firmware portion corresponding to the copy mode is loaded from the host computer into the peripheral device whilst excluding storage of firmware portions corresponding to the scan, print, and facsimile modes in the peripheral device.

51. (New) The peripheral device of claim 50, wherein the second functional mode is the scan mode, and upon selection of the scan mode, the second firmware portion corresponding to the scan mode is loaded from the host computer into the peripheral device whilst excluding storage of firmware portions corresponding to the copy, print, and facsimile modes in the peripheral device.

52. (New) The peripheral device of claim 51, wherein excluding storage of firmware portions corresponding to the copy, print, and facsimile modes comprises configuring the control circuit to delete the first firmware portion corresponding to the copy mode contained in the volatile memory device, prior to loading the second firmware portion corresponding to the scan mode into the volatile memory device.

53. (New) The computer network of claim 41, wherein the plurality of functional modes consists of: i) a copy mode, ii) a scan mode, iii) a print mode, and iv) a facsimile mode.

54. (New) The computer network of claim 41, wherein the plurality of functional modes comprises: i) a copy mode, ii) a scan mode, iii) a print mode, and iv) a facsimile mode.

55. (New) The computer network of claim 54, wherein the first portion of firmware code corresponds to the copy mode, and the as-needed basis comprises precluding the storage of firmware code portions corresponding to the scan, print, and facsimile modes in the peripheral device.

56. (New) The computer network of claim 55, wherein precluding the storage of firmware code portions corresponding to the scan, print, and facsimile modes comprises deleting from the volatile memory, previously loaded firmware code corresponding to at least one of the scan, print, and facsimile modes prior to loading the first portion of firmware code corresponding to the copy mode.